

CSCE 3304 - Digital Design 2
Project 1
A small standard cell library

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April 18, 2020

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1 Introduction

2 Inverter

2.1 Schematic

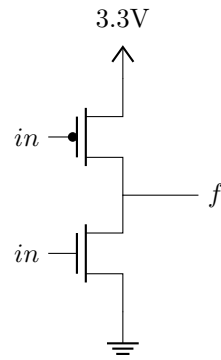


Figure 1:

2.2 Stick diagram

2.3 Schematic

3 Tri-state Inverter

3.1 Schematic

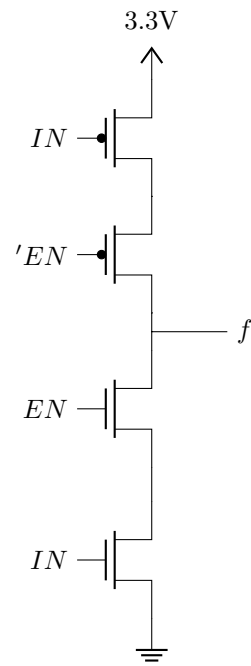


Figure 2:

4 3 input NAND

4.1 Schematic

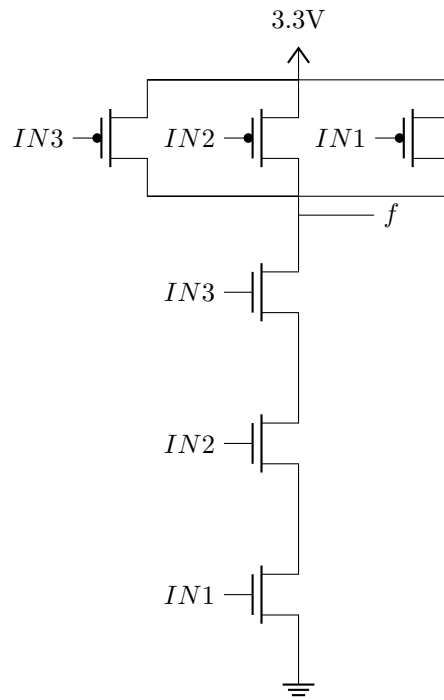


Figure 3:

5 3 input NOR

5.1 Schematic

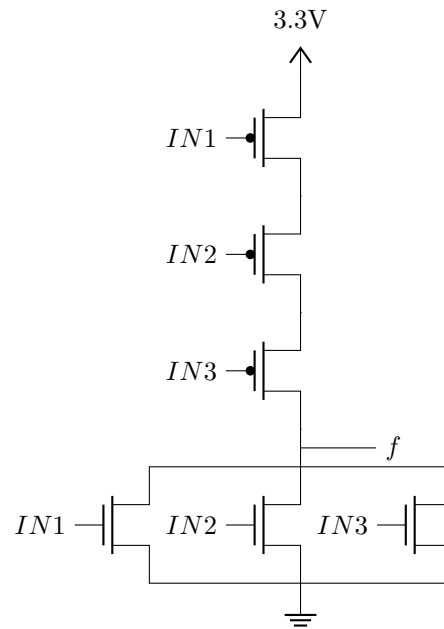


Figure 4:

6 Complex function

6.1 Schematic

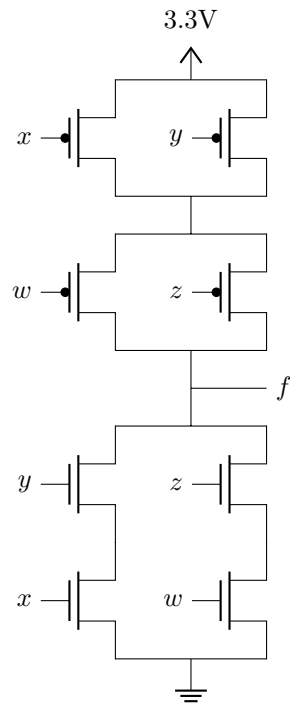


Figure 5:

6.2 Stick diagram

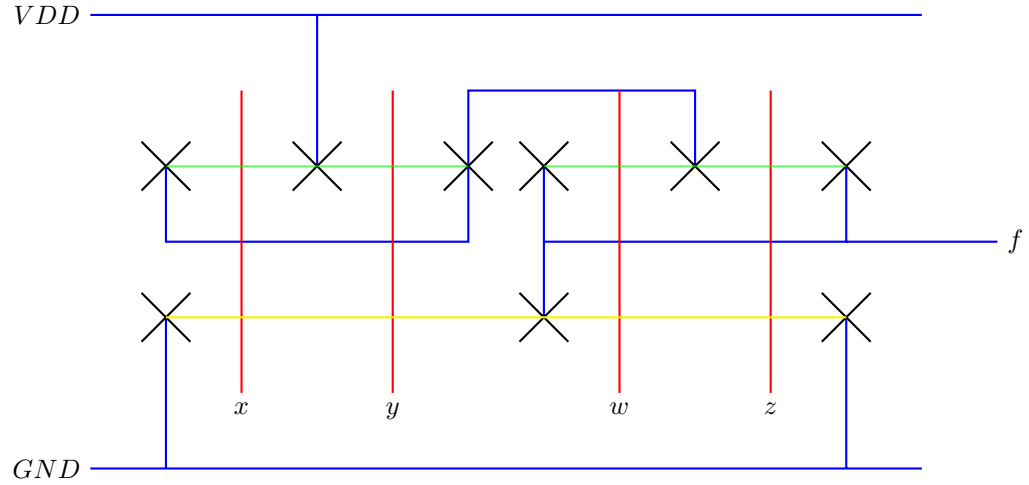


Figure 6:

6.3 Layout

6.4 Transition time

6.4.1 Size 1

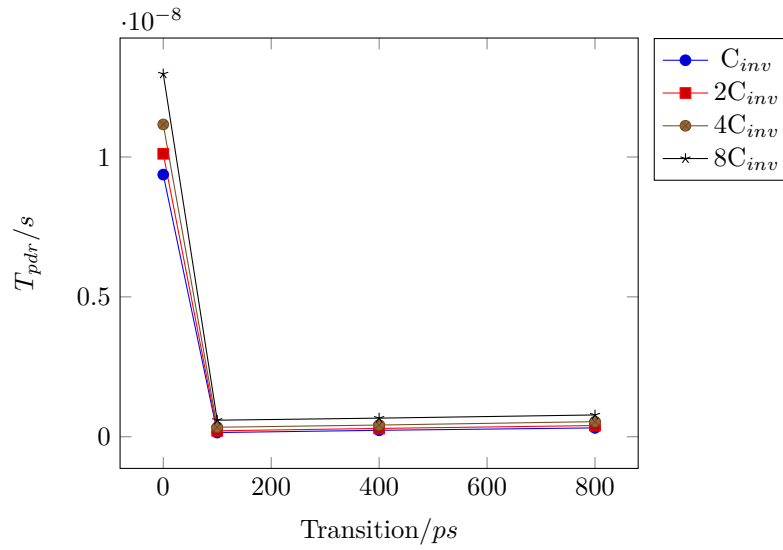


Figure 7:

6.4.2 Size 2

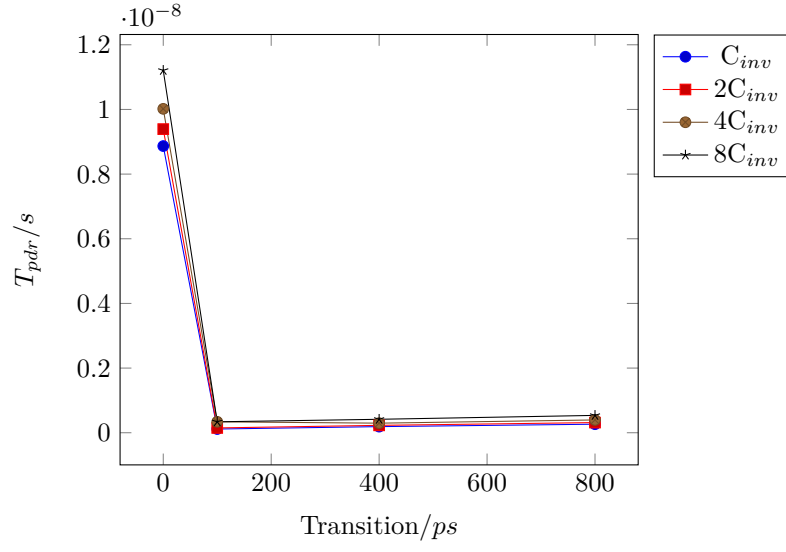


Figure 8:

6.4.3 Size 4

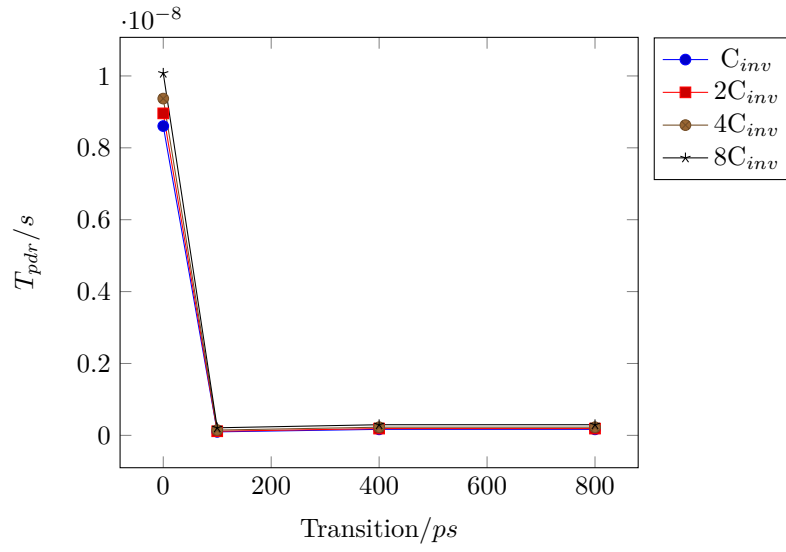


Figure 9:

6.5 Data collection

6.6 Minimum cell height